

Environmental Protection Agency
Pt. 53, Subpt. F, Table F-5

Particle Aerodynamic Diameter (μm)	Test Sampler			Ideal Sampler		
	Fractional Sampling Effectiveness	Interval Mass Concentration ($\mu\text{g}/\text{m}^3$)	Estimated Mass Concentration Measurement ($\mu\text{g}/\text{m}^3$)	Fractional Sampling Effectiveness	Interval Mass Concentration ($\mu\text{g}/\text{m}^3$)	Estimated Mass Concentration Measurement ($\mu\text{g}/\text{m}^3$)
0.875		0.730		0.997	0.730	0.728
1.000		0.551		0.995	0.551	0.548
1.125		0.428		0.991	0.428	0.424
1.250		0.346		0.987	0.346	0.342
1.375		0.294		0.980	0.294	0.288
1.500		0.264		0.969	0.264	0.256
1.675		0.251		0.954	0.251	0.239
1.750		0.250		0.932	0.250	0.233
1.875		0.258		0.899	0.258	0.232
2.000		0.272		0.854	0.272	0.232
2.125		0.292		0.791	0.292	0.231
2.250		0.314		0.707	0.314	0.222
2.375		0.339		0.602	0.339	0.204
2.500		0.366		0.480	0.366	0.176
2.625		0.394		0.351	0.394	0.138
2.750		0.422		0.230	0.422	0.097
2.875		0.449		0.133	0.449	0.060
3.000		0.477		0.067	0.477	0.032
3.125		0.504		0.030	0.504	0.015
3.250		0.530		0.012	0.530	0.006
3.375		0.555		0.004	0.555	0.002
3.500		0.579		0.001	0.579	0.001
3.625		0.602		0.000000	0.602	0.000000
3.750		0.624		0.000000	0.624	0.000000
3.875		0.644		0.000000	0.644	0.000000
4.000		0.663		0.000000	0.663	0.000000
4.125		0.681		0.000000	0.681	0.000000
4.250		0.697		0.000000	0.697	0.000000
4.375		0.712		0.000000	0.712	0.000000
4.500		0.726		0.000000	0.726	0.000000
4.625		0.738		0.000000	0.738	0.000000
4.750		0.750		0.000000	0.750	0.000000
4.875		0.760		0.000000	0.760	0.000000
5.000		0.769		0.000000	0.769	0.000000
5.125		0.777		0.000000	0.777	0.000000
5.250		0.783		0.000000	0.783	0.000000
5.375		0.789		0.000000	0.789	0.000000
5.500		0.794		0.000000	0.794	0.000000
5.625		0.798		0.000000	0.798	0.000000
5.75		0.801		0.000000	0.801	0.000000
	$C_{\text{sam(exp)}} =$			$C_{\text{ideal(exp)}} =$		
					13.814	

TABLE F-5 TO SUBPART F OF PART 53—ESTIMATED MASS CONCENTRATION MEASUREMENT OF PM_{2.5} FOR IDEALIZED “TYPICAL” COARSE AEROSOL SIZE DISTRIBUTION

Particle Aerodynamic Diameter (μm)	Test Sampler			Ideal Sampler		
	Fractional Sampling Effectiveness	Interval Mass Concentration ($\mu\text{g}/\text{m}^3$)	Estimated Mass Concentration Measurement ($\mu\text{g}/\text{m}^3$)	Fractional Sampling Effectiveness	Interval Mass Concentration ($\mu\text{g}/\text{m}^3$)	Estimated Mass Concentration Measurement ($\mu\text{g}/\text{m}^3$)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<0.500	1.000	16.651		1.000	16.651	16.651
0.625		5.899		0.999	5.899	5.893
0.750		2.708		0.998	2.708	2.703
0.875		1.996		0.997	1.996	1.990
1.000		1.478		0.995	1.478	1.471
1.125		1.108		0.991	1.108	1.098
1.250		0.846		0.987	0.846	0.835
1.375		0.661		0.980	0.661	0.648
1.500		0.532		0.969	0.532	0.516
1.675		0.444		0.954	0.444	0.424
1.750		0.384		0.932	0.384	0.358
1.875		0.347		0.899	0.347	0.312
2.000		0.325		0.854	0.325	0.277
2.125		0.314		0.791	0.314	0.248

Pt. 53, Subpt. F, Table F-6

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Particle Aerodynamic Diameter (μm)	Test Sampler			Ideal Sampler		
	Fractional Sampling Effectiveness	Interval Mass Concentration ($\mu\text{g}/\text{m}^3$)	Estimated Mass Concentration Measurement ($\mu\text{g}/\text{m}^3$)	Fractional Sampling Effectiveness	Interval Mass Concentration ($\mu\text{g}/\text{m}^3$)	Estimated Mass Concentration Measurement ($\mu\text{g}/\text{m}^3$)
2.250		0.312		0.707	0.312	0.221
2.375		0.316		0.602	0.316	0.190
2.500		0.325		0.480	0.325	0.156
2.625		0.336		0.351	0.336	0.118
2.750		0.350		0.230	0.350	0.081
2.875		0.366		0.133	0.366	0.049
3.000		0.382		0.067	0.382	0.026
3.125		0.399		0.030	0.399	0.012
3.250		0.416		0.012	0.416	0.005
3.375		0.432		0.004	0.432	0.002
3.500		0.449		0.001	0.449	0.000000
3.625		0.464		0.000000	0.464	0.000000
3.750		0.480		0.000000	0.480	0.000000
3.875		0.494		0.000000	0.494	0.000000
4.000		0.507		0.000000	0.507	0.000000
4.125		0.520		0.000000	0.520	0.000000
4.250				0.000000	0.532	0.000000
4.375				0.000000	0.543	0.000000
4.500				0.000000	0.553	0.000000
4.625				0.000000	0.562	0.000000
4.750				0.000000	0.570	0.000000
4.875				0.000000	0.577	0.000000
5.000				0.000000	0.584	0.000000
5.125				0.000000	0.590	0.000000
5.250				0.000000	0.595	0.000000
5.375				0.000000	0.599	0.000000
5.500				0.000000	0.603	0.000000
5.625				0.000000	0.605	0.000000
5.75				0.000000	0.608	0.000000
	$C_{\text{sam(exp)}} =$			$C_{\text{ideal(exp)}} =$		

TABLE F-6 TO SUBPART F OF PART 53—ESTIMATED MASS CONCENTRATION MEASUREMENT OF PM_{2.5} FOR IDEALIZED FINE AEROSOL SIZE DISTRIBUTION

Particle Aerodynamic Diameter (μm)	Test Sampler			Ideal Sampler		
	Fractional Sampling Effectiveness	Interval Mass Concentration ($\mu\text{g}/\text{m}^3$)	Estimated Mass Concentration Measurement ($\mu\text{g}/\text{m}^3$)	Fractional Sampling Effectiveness	Interval Mass Concentration ($\mu\text{g}/\text{m}^3$)	Estimated Mass Concentration Measurement ($\mu\text{g}/\text{m}^3$)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<0.500	1.000	18.868		1.000	18.868	18.868
0.625		13.412		0.999	13.412	13.399
0.750		8.014		0.998	8.014	7.998
0.875		6.984		0.997	6.984	6.963
1.000		5.954		0.995	5.954	5.924
1.125		5.015		0.991	5.015	4.970
1.250		4.197		0.987	4.197	4.142
1.375		3.503		0.980	3.503	3.433
1.500		2.921		0.969	2.921	2.830
1.675		2.438		0.954	2.438	2.326
1.750		2.039		0.932	2.039	1.900
1.875		1.709		0.899	1.709	1.536
2.000		1.437		0.854	1.437	1.227
2.125		1.212		0.791	1.212	0.959
2.250		1.026		0.707	1.026	0.725
2.375		0.873		0.602	0.873	0.526
2.500		0.745		0.480	0.745	0.358
2.625		0.638		0.351	0.638	0.224
2.750		0.550		0.230	0.550	0.127
2.875		0.476		0.133	0.476	0.063
3.000		0.414		0.067	0.414	0.028
3.125		0.362		0.030	0.362	0.011
3.250		0.319		0.012	0.319	0.004
3.375		0.282		0.004	0.282	0.001
3.500		0.252		0.001	0.252	0.000000